

What is claimed is:

1. An emitter composition of a field emission cell, comprising a carbon nanotube, a binder, glass frit, a dispersing agent, and an organic solvent, wherein the emitter
5 composition further comprises 0.1-20 wt% of diamond, based on a weight thereof.

2. The emitter composition as defined in claim 1,
10 wherein the carbon nanotube is used in an amount of 2-20 wt%, based on the weight of the composition.

3. The emitter composition as defined in claim 1, wherein the binder is used in the amount of 40-70 wt%, based
15 on the weight of the composition.

4. The emitter composition as defined in claim 1, wherein the glass frit is used in the amount of 2-20 wt%, based on the weight of the composition.

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5. The emitter composition as defined in claim 1, wherein the dispersing agent is used in the amount of 1-5 wt%, based on the weight of the composition.

25 6. The emitter composition as defined in claim 1,

wherein the organic solvent is used in the amount of 1-5 wt%, based on the weight of the composition.

7. The emitter composition as defined in claim 1,
5 wherein the organic solvent is selected from the group consisting of terpineol, butyl carbitol acetate, butyl carbitol, and mixtures thereof.

8. The emitter composition as defined in claim 2,
10 wherein the organic solvent is selected from the group consisting of terpineol, butyl carbitol acetate, butyl carbitol, and mixtures thereof.

9. The emitter composition as defined in claim 3,
15 wherein the organic solvent is selected from the group consisting of terpineol, butyl carbitol acetate, butyl carbitol, and mixtures thereof.

10. The emitter composition as defined in claim 4,
20 wherein the organic solvent is selected from the group consisting of terpineol, butyl carbitol acetate, butyl carbitol, and mixtures thereof.

11. The emitter composition as defined in claim 5,
25 wherein the organic solvent is selected from the group

consisting of terpeneol, butyl carbitol acetate, butyl carbitol, and mixtures thereof.

12. The emitter composition as defined in claim 6,
5 wherein the organic solvent is selected from the group consisting of terpeneol, butyl carbitol acetate, butyl carbitol, and mixtures thereof.

13. The emitter composition as defined in claim 1,
10 wherein the diamond comprises powders each having a size not larger than 6 μm .

14. A method of manufacturing an emitter composition of a field emission cell, comprising:

15 introducing a carbon nanotube, a binder, glass frit, a dispersing agent, and an organic solvent into a mixer, to obtain a first pre-mixture;

further adding 0.1-20 wt% of diamond, based on a weight of the composition, to the first pre-mixture, to obtain a
20 second pre-mixture; and

stirring the second pre-mixture by use of a stirrer equipped in the mixer for 1-3 hours, to prepare a paste type mixture.

25 15. A field emission cell, comprising an emitter

composition manufactured by the method of claim 9 and then printed to be a thick film.